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EXAMINER

WON, MICHAEL YOUNG

| | |
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| ART UNIT | PAPER NUMBER |
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2155

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/027,716

Applicant(s)

LUND ET AL.

Examiner

Michael Y. Won

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed January 9, 2006.
2. Claims 8 and 11 have been amended.
3. Claims 1-19 have been examined and are pending with this action.

Response to Arguments

4. Applicant's arguments filed January 9, 2006 have been fully considered but they are not persuasive.

With respect to claims 1, 8, and 14, the applicant(s) argue that the previous office action filed August 8, 2005 fails to form or establish a *prima facie* case of obviousness primary because the cited references fails to teach the limitation "*using a list of probe values to probe for configuration information for said PVC*".

In response, the applicant(s) are reminded that during patent examination, the pending claims must be given their broadest reasonable interpretation consistent with the specification. See *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). Furthermore, while the claims of issued patents are interpreted in light of the specification, prosecution history, prior art and other claims, this is not the mode of

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claim interpretation to be applied during examination. During examination, the claims must be interpreted as broadly as their terms reasonably allow. See *In re American Academy of Science Tech Center*, F.3d 2004 WL 1067528 (Fed. Cir. May 13, 2004). Clearly, the functional limitation is the probing for configuration information, which is clearly and explicitly taught by U.S. Pat. No. 6,904,020 ("Love"). The "using a list" is not given patentable weight because the claims fail to explicitly teach or disclose how the list is used, to teach away from the reference. The "probe values" are inherent since Love teaches a plurality of probes.

Although Love fails to mention or suggest the use of probes in connection with a PVC, PVC is explicitly taught by U.S. Pat. No. 6,700,890 ("Langley") and is therefore not relied on Love to teach this limitation.

For the reasons above dependent claims 2-7, 9-10, and 15-19 remain rejected.

With respect to claim 11, the applicant(s) argue that the previous office action filed August 8, 2005 fails to form or establish a *prima facie* case of obviousness primary because the cited references fails to teach the limitation "*to automatically send test packets using probe values from a digital subscriber line (DSL) device to a DSL access module (DSLAM)*"

In the rejection set forth below, Langley teaches of a DSL device and a DSL access wherein the configuration information sending and receiving is performed automatically (see rejection below). Love teaches the sending of test packets using probe values (see rejection below). The combinational teachings of Langley in view of Love clearly and explicitly teach the recited limitation above. In response to applicant's

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arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langley et al. (US 6,700,890 B1) in view of Love et al. (US 6,904,020 B1).

INDEPENDENT:

As per **claim 1**, Langley teaches a method to configure a network device, comprising: receiving a request to configure a first permanent virtual circuit (PVC) (see col.3, lines 16-21: "request... and update the configuration information") between a digital subscriber line (DSL) (see col.5, lines 46-49) device (see Fig.2A, #220; and col.6, lines 25-26: "endpoint device 220") and a DSL access module (DSLAM) (see Fig.2A, #210; and col.4, lines 30-34: "ATM switch 210"); and automatically configuring said first

PVC and using said configuration information to configure said first PVC (see col.3, lines 10-21 & 33-37).

Langley does not explicitly teach of using a list of probe values to probe for configuration information for said PVC. Love teaches of using a list of probe values to probe for configuration information (see col.6, lines 29-34, lines 36-38, & lines 63-67; and col.13, lines 56-59).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Love within the system of Langley by implementing probing for configuration information within the method to configure a network device because Love teaches that probing is a prior art scheme or approach to accomplish automatic communication network monitoring (see col.3, lines 23-32) and such automated monitoring eliminates the shortfalls of manual monitoring systems (see col.2, lines 29-65 and col.16, lines 1-8). Furthermore, Langley teaches "avoiding the need for a person to manually associate the configuration information with the proper subnetwork, thereby avoiding errors and saving time" (see col.3, lines 33-37).

As per **claim 8**, Langley teaches of a system to configure a network device, comprising: a digital subscriber line (DSL) (see col.5, lines 46-49) customer premise equipment (CPE) (see Fig.2A, #220; and col.6, lines 25-26: "endpoint device 220"); a DSL access module (DSLAM) (see Fig.2A, #210; and col.4, lines 30-34: "ATM switch 210") connected to said DSL CPE (see Fig.2A); detecting configuration information for use in configuring a permanent virtual circuit (PVC) between said DSL CPE and said

DSLAM (see col.3, lines 10-17); and automatically configuring a permanent virtual circuit (PVC) between said DSL CPE and said DSLAM (see col.3, lines 10-21 & 33-37).

Although Langley teaches of DSL (see col.5, lines 46-49), Langley does not explicitly teach of a probing module to use a list of probe values to probe for configuration information. Love teaches of a probing module (see col.6, lines 29-30: "measurement probes") to use a list of probe values to probe for configuration information (see col.6, lines 29-34, lines 36-38, & lines 63-67; and col.13, lines 56-59).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Love within the system of Langley by implementing probing module to use a list of probe values to probe for configuration information within the system to configure a network device because Love teaches that probing module "can connected directly to one of the transmission wires of the network... without interfering with the normal flow traffic" (see col.6, lines 57-61) thereby making the module mobile and Love further teaches that probing is a prior art scheme or approach to accomplish automatic communication network monitoring (see col.3, lines 23-32) and such automated monitoring eliminates the shortfalls of manual monitoring systems (see col.2, lines 29-65 and col.16, lines 1-8). Furthermore, Langley teaches "avoiding the need for a person to manually associate the configuration information with the proper subnetwork, thereby avoiding errors and saving time" (see col.3, lines 33-37).

As per **claim 11**, Although Langley teaches of a digital subscriber line (DSL) device and a DSL access module (DSLAM) and of an automated process (see col.3,

lines 10-21 & 33-37), Langley does not explicitly teach of a probing module for a network device, comprising: an event management module to send test packets using probe values from a device to an access module; a detection module to detect a packet received in response to at least one of said test packets; and an extraction module to retrieve configuration information from said received packet.

Love teaches of a probing module for a network device, comprising: an event management module (inherent: see col.3, lines 23-29: injected test data must injected from somewhere) to send test packets using probe values from a device to an access module (see col.3, lines 23-32); a detection module to detect a packet received in response to at least one of said test packets (see Fig.2, #106; and col.7, lines 21-27); and an extraction module to retrieve configuration information from said received packet (see Fig.2, #108; and col.8, lines 13-24).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Love within the system of Langley by implementing probing for configuration information for said PVC within the network device because Love teaches that probing is a prior art scheme or approach to accomplish automatic communication network monitoring (see col.3, lines 23-32) and such automated monitoring eliminates the shortfalls of manual monitoring systems (see col.2, lines 29-65 and col.16, lines 1-8). Furthermore, Langley teaches "avoiding the need for a person to manually associate the configuration information with the proper subnetwork, thereby avoiding errors and saving time" (see col.3, lines 33-37).

As per **claim 14**, Langley teaches an article comprising: a storage medium; said storage medium including stored instructions that, when executed by a processor (see col.4, lines 1-6), result in configuring a network device by receiving a request to configure a first permanent virtual circuit (PVC) (see col.3, lines 16-21: "request... and update the configuration information") between a digital subscriber line (DSL) (see col.5, lines 46-49) device (see Fig.2A, #220; and col.6, lines 25-26: "endpoint device 220") and a DSL access module (DSLAM) (see Fig.2A, #210; and col.4, lines 30-34: "ATM switch 210"), and automatically configuring said first PVC and using said configuration information to configure said first PVC (see col.3, lines 10-17).

Langley does not explicitly teach of using a list of probe values to probe for configuration information for said PVC. Love teaches of using a list of probe values to probe for configuration information (see col.6, lines 29-34, lines 36-38, & lines 63-67; and col.13, lines 56-59).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ the teachings of Love within the system of Langley by implementing probing for configuration information within the article comprising a storage medium because Love teaches that probing is a prior art scheme or approach to accomplish automatic communication network monitoring (see col.3, lines 23-32) and such automated monitoring eliminates the shortfalls of manual monitoring systems (see col.2, lines 29-65 and col.16, lines 1-8). Furthermore, Langley teaches "avoiding the need for a person to manually associate the configuration information with the proper subnetwork, thereby avoiding errors and saving time" (see col.3, lines 33-37).

DEPENDENT:

As per **claims 2 and 15**, Love further teaches wherein said automatically configuring comprises: sending test packets to said DSLAM using said probe values; receiving a response packet to one of said test packets; retrieving said configuration information from said response packet (see claim 11 rejection above). Langley teaches of configuring said PVC using said retrieved configuration information (see claim 1 rejection above).

As per **claims 3 and 16**, Love further teaches wherein for each probe value in said probe table said sending comprises: retrieving a probe value from said list of probe values, wherein said probe value represents a virtual circuit (implicit: see col.3, lines 27-30; col.7, lines 21-22; and col.11, lines 47-51: if the system was "active probing", clearly the probe which comprises a test packet would comprise a value); enabling said virtual circuit (inherent); and sending a test packet over said virtual circuit (see col.3, lines 27-29).

As per **claims 4 and 17**, Langley teaches of further comprising disabling each virtual circuit that did not receive a response packet (implicit: see col.2, lines 18-25).

As per **claims 5 and 18**, Langley teaches of further comprising: receiving a request to configure a second PVC for said DSL device (see col.6, lines 3-8); receiving configuration information for said second PVC (see col.6, lines 9-19); and configuring said second PVC using said configuration information (see col.6, lines 19-24 and col.7, line 66-col.8, line 12).

As per **claims 6, 10, and 13**, Langley further teaches wherein said configuration information may comprise a virtual channel identifier (VCI) and a virtual path identifier (VPI) (see Fig.2B and col.4, lines 59-65).

As per **claims 7 and 19**, Langley teaches of further comprising: determining that a terminating condition has occurred prior to automatically configuring said first PVC (see col.8, lines 17-21); sending a message that said first PVC was not configured to a user (see col.8, lines 36-39); and receiving said configuration information for said first PVC from a user (inherent).

As per **claim 9**, Langley further teaches wherein said DSL CPE comprises a DSL CPE consisting essentially one of the following: a DSL/asynchronous transfer mode (ATM) router (see col.1, lines 42-45), an asymmetric DSL (ADSL)/ATM router, a DSL/ATM bridge, an ADSL/ATM bridge, a DSL modem, and an ADSL modem.

As per **claim 12**, Langley teaches of further comprising a configuration module to configure a permanent virtual connection between said DSL and said DSLAM using said configuration information (see col.4, lines 30-34 and col.6, lines 32-41).

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Y. Won whose telephone number is 571-272-3993. The examiner can normally be reached on M-Th: 7AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Won



March 7, 2006



SALEH NAJJAR
SUPERVISORY PATENT EXAMINER